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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,182	02/24/2004	Hideki Sawano	1046.1312	1131

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EXAMINER

ADDY, ANTHONY S

ART UNIT	PAPER NUMBER
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2617

DATE MAILED: 09/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/784,182

Applicant(s)

SAWANO, HIDEKI

Examiner

Anthony S. Addy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 05, 2006 has been entered. **Claims 1-19** are pending in the present application.

### ***Response to Arguments***

2. Applicant's arguments filed on September 05, 2006 have been fully considered but they are not persuasive.

With respect to applicant's argument that, "Neither Murphy nor Calvert et al., discusses or suggests, wherein each of the plurality of measuring apparatuses is mobile and calculates only a distance between each of the plurality of measuring apparatuses and the search object, and the plurality of measuring apparatuses located around the search object cooperate with the service device (see page 9, sixth paragraph, page 10, second and fourth paragraphs and page 11, first paragraph of the response)," examiner respectfully disagrees and notes that Murphy meets the limitations as claimed, since Murphy teaches, the tracking units 10a-10c are attached to moving vehicles 42a-42c and by employing more than mobile tracking unit, the precise location of object 12 is

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more easily calculated by base station 20 (see col. 10, lines 3-56 and Fig. 3; shows mobile tracking units 10a-10c attached to moving vehicles 42a-42c [i.e. reads on the limitations "each of the plurality of measuring apparatuses is mobile"])). Murphy further teaches the distance of object 12 is determined from the tracking units 10, and the distance is calculated only between each of the mobile tracking units 10a-10c attached to moving vehicles 42a-42c from object 12 (see col. 4, lines 43-59 and col. 10, lines 43-45). According to Murphy, the base 20 calculates the position of object 12 using the range, bearing, and position information transmitted from each of vehicles 42a-42c at various locations and the range, bearing, and position information can be transmitted from vehicles 42a at a time other than when such information is transmitted from vehicles 42b or 42c (see col. 10, lines 46-52 [i.e. the following teaching of Murphy reads on the limitations "the plurality of measuring apparatuses located around the search object cooperate with the service device"])).

In view of the above, the 35 U.S.C. 103(a) rejections using Murphy and Calvert et al., with regard to **claims 1-19** is proper and is maintained as repeated below.

***Claim Rejections - 35 USC § 103***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Murphy, U.S. Patent Number 6,094,164 (hereinafter Murphy)** and further in view of **Calvert et al., U.S. Publication Number 2002/0102989 A1 (hereinafter Calvert)**.

Regarding claim 1, Murphy teaches a measuring apparatus cooperating with a service device that provides position information of a search object (see col. 3, line 62 through col. 4, line 12, col. 6, lines 22-50 and Fig. 1B; shows tracking units 10A-10C [i.e. reads on a measuring apparatus] cooperating with a base station 20 [i.e. reads on a service device] that provides position information of an object 12 [i.e. reads on a search object]), comprising: a unit for transmitting and receiving information (see col. 7, lines 1-14 and Fig. 2); a unit calculating only a distance between the measuring apparatus and the search object (see col. 4, lines 43-59, col. 10, lines 43-45 and Figs. 4A-4C); a unit acquiring present position information of the measuring apparatus (see col. 7, lines 15-21 and Fig. 2); and a unit transmitting the present position information and the distance information to the service device (see col. 4, lines 43 through col. 5, line 9, col. 7, lines 1-14 and Fig. 2), wherein the service device is placed at a predetermined fixed location (see col. 4, lines 60-67, col. 7, lines 59-64 and Fig. 1B; shows a base station 20 placed at a predetermined fixed location from tracking units 10A-10C), and wherein the measuring apparatus is mobile and a plurality of measuring apparatuses located around the search object cooperate with the service device (see col. 10, lines 3-56 and Fig. 3; shows mobile tracking units 10a-10c attached to moving vehicles 42a-42c [i.e. reads on the limitations "measuring apparatus is mobile"]).

Murphy fails to explicitly teach the measuring apparatus accepting from a request apparatus a search request for searching the position of the search object.

In an analogous field of endeavor, Calvert teaches a method and apparatus for accurately locating a communication device in a wireless communication system,

wherein a requesting device such as a wireless/wireline telephone device sends a request for the location of a communication device to a wireless system controller (see p. 2 [0023], p. 4 [0034] and Fig. 1 [i.e. wireless/wireline telephone devices 101, 102 & 113 reads on a request apparatus requesting position information from wireless system controller 107 [i.e. reads on a measuring apparatus] of a communication device 101 [i.e. reads on a search object] in the wireless system 100)). According to Calvert, the search request preferably includes the identification (ID) or address of the communication device to be located and the address or ID of the requesting device to which the location is to be sent (see p. 4 [0034]).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Murphy with Calvert to include the measuring apparatus accepting from a request apparatus a search request for searching the position of a search object, in order to accurately locate a communication device by including the identification (ID) or address of the communication device to be located in a search request to the system infrastructure as taught by Calvert (see p. 2 [0020] and p. 4 [0034]).

Regarding claim 2, Murphy in view of Calvert teaches all the limitations of claim 1. Murphy further teaches a measuring apparatus, further comprising: a unit transmitting radio waves receivable by the search object (see col. 7, lines 1-14, col. 4, lines 25-31 and Fig. 2); and a unit receiving a response to the radio waves from the search object (see col. 7, lines 1-14, col. 4, lines 25-31 and Fig. 2).

Regarding claims 4 and 5, Murphy teaches a service device for providing position information of a search object (see col. 4, line 51 through col. 5, line 18 and Fig. 1B; shows a base station 20 [i.e. reads on a service device] that provides position information of an object 12 [i.e. reads on a search object]), comprising: a unit receiving, from a plurality of measuring apparatus for measuring a position of the search object, present position information of each of the plurality of measuring apparatuses and information about a distance between each of the plurality of measuring apparatuses making the measurement and the search object (see col. 4, lines 43-59, col. 10, lines 22-56 and col. 13, lines 37-57), and calculating the position information of the search object, based on the present position information and the information about the distance to the search object received from the measuring apparatus (see col. 5, lines 2-4, col. 6, lines 42-48 and col. 8, lines 13-16); and a unit transmitting to an apparatus the position information of the search object that has been calculated based on the present position information and the information about the distance to the search object received from each of the plurality of measuring apparatuses (see col. 4, lines 43-59 and col. 10, lines 3-56), wherein the service device is placed at a predetermined fixed location (see col. 4, lines 60-67, col. 7, lines 59-64 and Fig. 1B; shows a base station 20 placed at a predetermined fixed location from tracking units 10A-10C), wherein each of the plurality of measuring apparatuses is mobile (see col. 10, lines 3-56 and Fig. 3; shows mobile tracking units 10a-10c attached to moving vehicles 42a-42c [i.e. reads on the limitations “wherein each of the plurality of measuring apparatuses is mobile”]) and calculates only a distance between each of the plurality of measuring apparatuses and the search

object (see col. 4, lines 43-59 and col. 10, lines 43-45), and the plurality of measuring apparatuses located around the search object cooperate with the service device (see col. 10, lines 46-52).

Murphy fails to explicitly teach a request apparatus requesting the position information of the search object and transmitting to the request apparatus the position information of the search object.

In an analogous field of endeavor, Calvert teaches a method and apparatus for accurately locating a communication device in a wireless communication system, wherein a requesting device such as a wireless/wireline telephone device sends a request for the location of a communication device to a wireless system controller (see p. 2 [0023], p. 4 [0034] and Fig. 1 [i.e. wireless/wireline telephone devices 101, 102 & 113 reads on a request apparatus requesting position information from wireless system controller 107 [i.e. reads on a measuring apparatus] of a communication device 101 [i.e. reads on a search object] in the wireless system 100]). According to Calvert, the search request preferably includes the identification (ID) or address of the communication device to be located and the address or ID of the requesting device to which the location is to be sent (see p. 4 [0034]).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Murphy with Calvert to include a request apparatus requesting the position information of the search object and transmitting to the request apparatus the position information of the search object, in order to accurately locate a communication device by including the identification (ID) or address of the



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communication device to be located in a search request to the system infrastructure as taught by Calvert (see p. 2 [0020] and p. 4 [0034]).

Regarding claims 8 and 14, Murphy teaches a method of cooperating with a service device that provides position information of a search object, comprising: transmitting radio waves receivable by the search object (see col. 4, lines 25-31 and Fig. 1B; shows communication links 18A, 18B, 18C between search object 12 and tracking units 10); receiving a response to the radio waves from the search object (see col. 4, lines 25-31 and Fig. 1B; shows communication links 18A, 18B, 18C between search object 12 and tracking units 10); calculating only a distance between each of the plurality of measuring apparatuses and the search object from the response received (see col. 4, lines 43-59 and col. 10, lines 43-45); acquiring present position information of each of the plurality of measuring apparatuses (see col. 10, lines 22-56 and col. 7, lines 15-21); and transmitting the present position information and the distance of each of the plurality of measuring apparatuses to the service device (see col. 4, line 43 through col. 5, line 9, col. 7, lines 1-14 and col. 10, lines 22-56), wherein the service device is placed at a predetermined fixed location (see col. 4, lines 60-67, col. 7, lines 59-64 and Fig. 1B; shows a base station 20 placed at a predetermined fixed location from tracking units 10A-10C), and wherein each of the plurality of measuring apparatuses is mobile (see col. 10, lines 3-56 and Fig. 3; shows mobile tracking units 10a-10c attached to moving vehicles 42a-42c [i.e. reads on the limitations "wherein each of the plurality of measuring apparatuses is mobile"])), and the plurality of

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measuring apparatuses located around the search object cooperate with the service device (see col. 10, lines 46-52).

Murphy fails to explicitly teach a request apparatus requesting a position of the search object.

In an analogous field of endeavor, Calvert teaches a method and apparatus for accurately locating a communication device in a wireless communication system, wherein a requesting device such as a wireless/wireline telephone device sends a request for the location of a communication device to a wireless system controller (see p. 2 [0023], p. 4 [0034] and Fig. 1 [i.e. wireless/wireline telephone devices 101, 102 & 113 reads on a request apparatus requesting position information from wireless system controller 107 [i.e. reads on a measuring apparatus] of a communication device 101 [i.e. reads on a search object] in the wireless system 100)). According to Calvert, the search request preferably includes the identification (ID) or address of the communication device to be located and the address or ID of the requesting device to which the location is to be sent (see p. 4 [0034]).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Murphy with Calvert to include a request apparatus requesting a position of the search object, in order to accurately locate a communication device by including the identification (ID) or address of the communication device to be located in a search request to the system infrastructure as taught by Calvert (see p. 2 [0020] and p. 4 [0034]).

Regarding claims 10 and 16, Murphy teaches a method of providing position information of a search object (see col. 3, line 62 through col. 4, line 12, col. 6, lines 22-50 and Fig. 1B), comprising: receiving, from a plurality of measuring apparatuses that each measures a position of the search object, present position information of each of the plurality of measuring apparatuses and information about a distance between each of the plurality of measuring apparatuses making the measurement and the search object (see col. 4, lines 43-59, col. 7, lines 1-14 and col. 10, lines 22-56); calculating the position information of the search object, based on the present position information and the information about the distance to the search object received from each of the plurality of measuring apparatuses (see col. 4, lines 43-59, col. 7, lines 1-14 and col. 10, lines 22-56); and transmitting to an apparatus the position information of the search object that has been calculated based on the present position information and the information about the distance to the search object received from each of the plurality of measuring apparatus (see col. 9, lines 4-15 and col. 10, lines 22-56), wherein each of the plurality of measuring apparatuses is mobile (see col. 10, lines 3-56 and Fig. 3; shows mobile tracking units 10a-10c attached to moving vehicles 42a-42c [i.e. reads on the limitations “wherein each of the plurality of measuring apparatuses is mobile”]) and calculates only a distance between each of the plurality of measuring apparatuses and the search object (see col. 4, lines 43-59 and col. 10, lines 43-45), and the plurality of measuring apparatuses located around the search object cooperate with the service device (see col. 10, lines 46-52).

Murphy fails to explicitly teach a request apparatus requesting the position information of the search object and transmitting to the request apparatus the position information of the search object.

In an analogous field of endeavor, Calvert teaches a method and apparatus for accurately locating a communication device in a wireless communication system, wherein a requesting device such as a wireless/wireline telephone device sends a request for the location of a communication device to a wireless system controller (see p. 2 [0023], p. 4 [0034] and Fig. 1 [i.e. wireless/wireline telephone devices 101, 102 & 113 reads on a request apparatus requesting position information from wireless system controller 107 [i.e. reads on a measuring apparatus] of a communication device 101 [i.e. reads on a search object] in the wireless system 100]). According to Calvert, the search request preferably includes the identification (ID) or address of the communication device to be located and the address or ID of the requesting device to which the location is to be sent (see p. 4 [0034]).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Murphy with Calvert to include a request apparatus requesting the position information of the search object and transmitting to the request apparatus the position information of the search object, in order to accurately locate a communication device by including the identification (ID) or address of the communication device to be located in a search request to the system infrastructure as taught by Calvert (see p. 2 [0020] and p. 4 [0034]).

Regarding claims 11 and 17, Murphy teaches a method of providing information of a search object through a system including a service device that provides the position information of the search object and a plurality of measuring apparatuses for reporting distances to the search object to the search device (see col. 3, line 62 through col. 4, line 12, col. 6, lines 22-50 and Fig. 1B; shows tracking units 10A-10C [i.e. reads on a plurality of measuring apparatus] cooperating with a base station 20 [i.e. reads on a service device] that provides position information of an object 12 [i.e. reads on a search object]), comprising: receiving via the service device the position information of the search object calculated based upon the reporting from the measuring apparatuses, wherein the service device is placed at a predetermined fixed location (see col. 4, lines 43 through col. 5, line 9, col. 7, lines 1-14, col. 7, lines 59-64, col. 10, lines 22-56 and Fig. 1B; shows a base station 20 placed at a predetermined fixed location from tracking units 10A-10C), wherein each of the plurality of measuring apparatuses is mobile (see col. 10, lines 3-56 and Fig. 3; shows mobile tracking units 10a-10c attached to moving vehicles 42a-42c [i.e. reads on the limitations "wherein each of the plurality of measuring apparatuses is mobile"]) and calculates only a distance between each of the plurality of measuring apparatuses and the search object (see col. 4, lines 43-59 and col. 10, lines 43-45), and the plurality of measuring apparatuses located around the search object cooperate with the service device (see col. 10, lines 46-52).

Murphy fails to explicitly teach transmitting by a request apparatus, a search request for the position information of the search object to the measuring apparatuses existing in a periphery of the apparatus.

In an analogous field of endeavor, Calvert teaches a method and apparatus for accurately locating a communication device in a wireless communication system, wherein a requesting device such as a wireless/wireline telephone device sends a request for the location of a communication device to a wireless system controller (see p. 2 [0023], p. 4 [0034] and Fig. 1 [i.e. wireless/wireline telephone devices 101, 102 & 113 reads on a request apparatus requesting position information from wireless system controller 107 [i.e. reads on a measuring apparatus] of a communication device 101 [i.e. reads on a search object] in the wireless system 100]). According to Calvert, the search request preferably includes the identification (ID) or address of the communication device to be located and the address or ID of the requesting device to which the location is to be sent (see p. 4 [0034]).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Murphy with Calvert to include, transmitting by a request apparatus, a search request for the position information of the search object to the measuring apparatuses existing in a periphery of the apparatus, in order to accurately locate a communication device by including the identification (ID) or address of the communication device to be located in a search request to the system infrastructure as taught by Calvert (see p. 2 [0020] and p. 4 [0034]).

Regarding claims 7, 13 and 19, Murphy in view of Calvert teaches all the limitations of claims 5, 11 and 17. Calvert further teaches receiving setting of a search object range in the periphery of the request apparatus, and controlling electromagnetic

waves carrying the search request at a predetermined receipt electric power level in the search object range (see p. 4 [0034 & 0037-0039]).

Regarding claims 3, 6, 9, 12, 15 and 18, Murphy in view of Calvert teaches all the limitations of claims 1, 5, 8, 11, 13 and 17. Calvert further teaches wherein the search request contains information capable of specifying the request apparatus, and the unit transmitting the present position information and the distance information together with the specifiable information to the service device (see p. 4 [0034 & 0037-0039]).

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bar-On et al., U.S. Publication Number 2005/0159174 discloses mobile communication stations methods and systems.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony S. Addy whose telephone number is 571-272-7795. The examiner can normally be reached on Mon-Thur 8:00am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc M. Nguyen can be reached on 571-272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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Anthony S. Addy  
September 15, 2006



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